HI-FEED MIDI™

Hi-Feed Cutter
09mm IC Insert Sizes

Insert Series:
- UNLU0904

Face Mills:
- TG1G
- TG2G

End Mills:
- 1TG1G

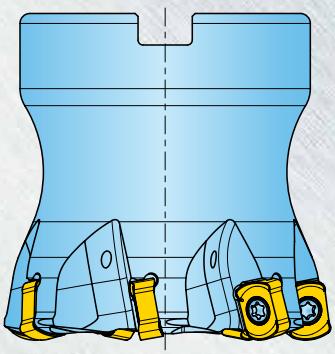
Insert Grades:
- IN2505
- IN2504
- IN2510
- IN2530
- IN2035
- IN7035

Applications:
- Die & Mold
- Aerospace
- General Purpose

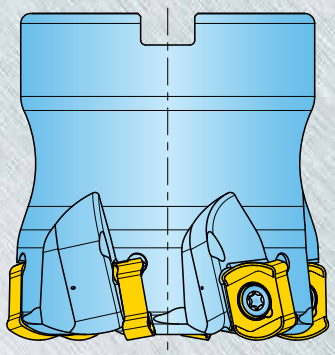
PRODUCT ANNOUNCEMENT UPDATE 2019

Increased Depth of Cut!

Features and Benefits:
- Available in end mill, modular head and face mill type
- .060" (1.5mm) DOC capability, equals increased productivity
- 4 indexes provide for cost effective machining
- Strong positive insert rake face angles for efficient milling.
- Rigid clamping with unique pocket design & high tensile clamping screw, M3.5
- High-Density cutters
- Through coolant, face mills and end mills



HI-FEED MINI



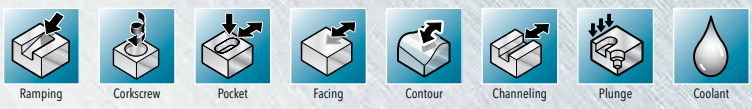
HI-FEED MIDI™

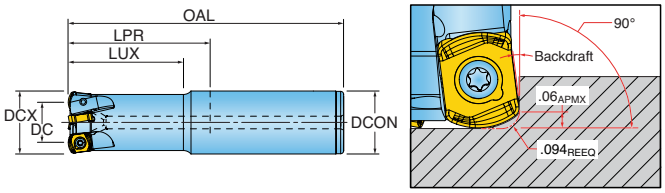
All the advantages of the Hi-FeedMini, but with an increased Depth of Cut!

Member IMC Group Ingersoll Cutting Tools

SERIES 1TG1G

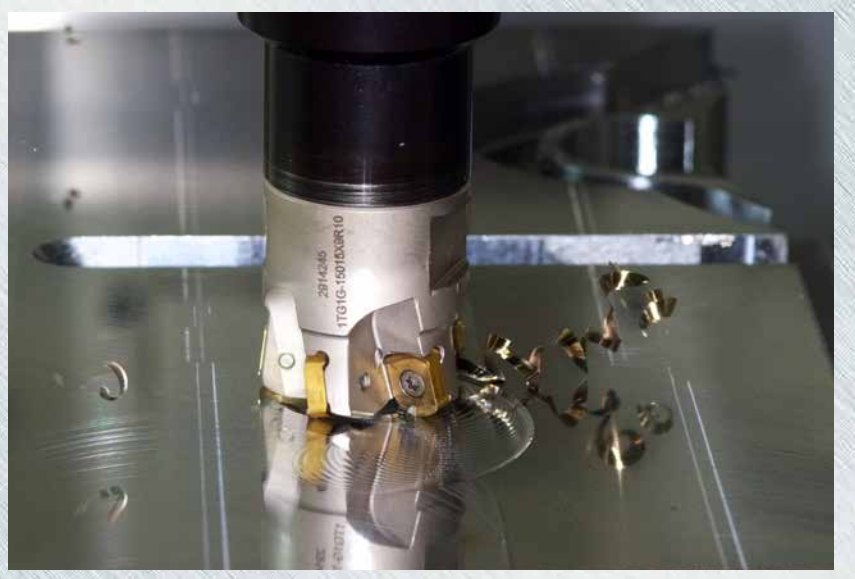
END MILLS, 09MM IC INSERT SERIES





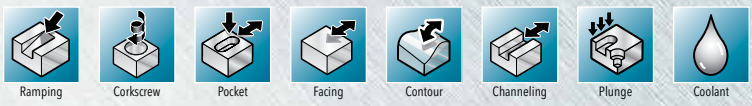
Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Diameter	RMPX Ramp Angle Max.	REEQ Program Radius Equivalent
INCH									
1TG1G-10019S1R03	1.000	0.594	1.80	1.97	7.00	3	1.000	3.0	0.094
1TG1G-10020S1R03	1.000	0.594	1.83	2.00	10.00	3	1.000	3.0	0.094
1TG1G-12027E2R03	1.250	0.841	2.57	2.75	5.75	3	1.250	2.0	0.094
1TG1G-12027E2R04	1.250	0.841	2.57	2.75	5.75	4	1.250	2.0	0.094
1TG1G-12047E2R03	1.250	0.841	4.57	4.75	7.75	3	1.250	2.0	0.094
1TG1G-15016E2R04	1.500	1.090	1.45	1.69	6.00	4	1.250	1.5	0.094
1TG1G-15016E2R05	1.500	1.090	1.45	1.69	6.00	5	1.250	1.5	0.094
METRIC									
1TG1G025070T5R00	25.00 mm	14.70 mm	70.0 mm	80.0 mm	150.0 mm	2	25.00 mm	2.0	0.094
1TG1G025070T5R01	25.00 mm	14.70 mm	70.0 mm	80.0 mm	150.0 mm	3	25.00 mm	2.0	0.094
1TG1G025110T5R01	25.00 mm	14.70 mm	110.0 mm	120.0 mm	200.0 mm	3	25.00 mm	2.0	0.094
1TG1G032070U7R00	32.00 mm	21.60 mm	70.0 mm	80.0 mm	160.0 mm	3	32.00 mm	2.0	0.094
1TG1G032070U7R02	32.00 mm	21.60 mm	70.00	80.0 mm	160.0 mm	4	32.00 mm	2.0	0.094
1TG1G032120U7R00	32.00 MM	21.60 mm	120.0 MM	130.0 mm	220.0 MM	3	32.00 mm	2.0	0.094
1TG1G032120U7R02	32.00 mm	21.60 mm	120.0 mm	134.0 mm	220.0 mm	4	32.00 mm	2.0	0.094

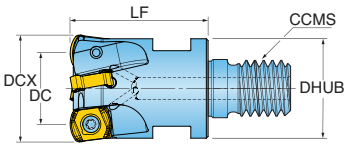
See tech page for programming information.

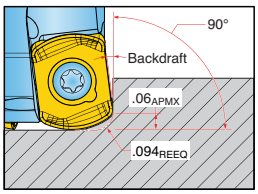


SERIES 1TG1G - TOP•ON STYLE

MODULAR END MILLS, 09MM IC INSERT SERIES

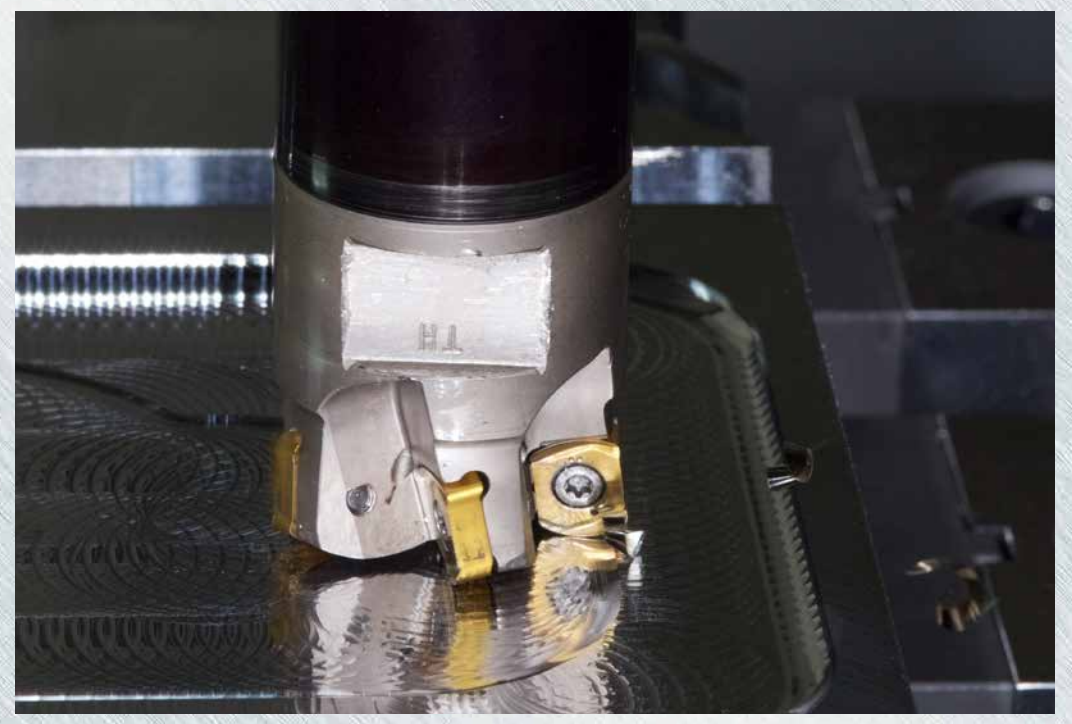






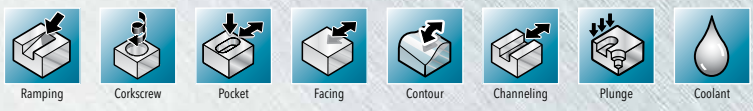
Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	DHUB Hub Dia.	CCMS Connection Code	RMPX Ramp Angle Max.	REEQ Program Radius Equivalent
INCH								
1TG1G-10015X7R03	1.000	0.594	1.57	3	1.14	TopOn M12	3.0	0.094
1TG1G-12015X8R04	1.250	0.841	1.57	4	1.14	TopOn M16	2.0	0.094
1TG1G-15015X9R10	1.500	1.090	1.57	5	1.42	TopOn M20	1.5	0.094
METRIC								
1TG1G025035X7R00	25.00 mm	14.70 mm	35.0 mm	2	29.0 mm	TopOn M12	2.0	0.094
1TG1G025035X7R01	25.00 mm	14.70 mm	35.0 mm	3	29.0 mm	TopOn M12	2.0	0.094
1TG1G032043X8R00	32.00 mm	21.60 mm	43.0 mm	3	29.0 mm	TopOn M16	2.0	0.094
1TG1G032043X8R01	32.00 mm	21.60 mm	43.0 mm	4	29.0 mm	TopOn M16	2.0	0.094
1TG1G035043X8R00	35.00 mm	24.60 mm	43.0 mm	4	29.0 mm	TopOn M16	2.0	0.094

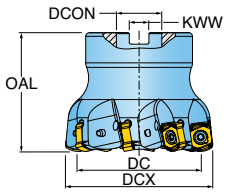
See tech page for programming information.

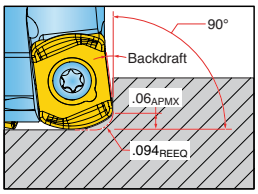


SERIES TG1G, TG2G

FACE MILLS, 09MM IC INSERT SERIES



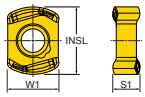
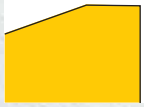
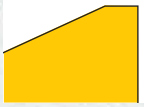




Part Number	DCX Cutting Dia. Max.	DC Cutting Diameter	OAL Overall Length	ZEFF Effective Teeth	DCON Bore Diameter	KWW Keyway	RMPX Ramp Angle Max.	REEQ Program Radius Equivalent
INCH								
TG1G-20R01	2.000	1.593	1.97	7	0.750	0.31	1.0	0.094
TG2G-20R01	2.000	2.000	1.97	6	0.750	0.31	1.0	0.094
TG1G-25R01	2.500	2.500	1.97	8	0.750	0.31	0.8	0.094
TG1G-30R01	3.000	3.000	1.75	9	1.000	0.38	0.6	0.094
TG2G-30R01	3.000	3.000	1.75	7	1.000	0.38	0.6	0.094
METRIC								
TG2G040R01	40.00 mm	40.00 mm	40.0 mm	5	16.00 mm	8.4 mm	1.0	0.094
TG1G050R00	50.00 mm	50.00 mm	50.0 mm	7	22.00 mm	10.4 mm	1.0	0.094
TG2G050R00	50.00 mm	50.00 mm	50.0 mm	6	22.00 mm	10.4 mm	1.0	0.094
TG3G050R00	50.00 mm	50.00 mm	50.0 mm	5	22.00 mm	10.4 mm	1.0	0.094
TG1G052R00	52.00 mm	52.00 mm	50.0 mm	7	22.00 mm	10.4 mm	1.0	0.094
TG2G052R00	52.00 mm	52.00 mm	50.0 mm	6	22.00 mm	10.4 mm	1.0	0.094
TG1G063R00	63.00 mm	63.00 mm	50.0 mm	8	22.00 mm	10.4 mm	0.8	0.094
TG2G063R00	63.00 mm	63.00 mm	50.0 mm	7	22.00 mm	10.4 mm	0.8	0.094
TG3G063R00	63.00 mm	63.00 mm	50.0 mm	6	22.00 mm	10.4 mm	0.8	0.094
TG1G080R00	80.00 mm	80.00 mm	50.0 mm	10	27.00 mm	12.4 mm	0.8	0.094
TG2G080R00	80.00 mm	80.00 mm	50.0 mm	9	27.00 mm	12.4 mm	0.8	0.094
TG3G080R00	80.00 mm	80.00 mm	50.0 mm	8	27.00 mm	12.4 mm	0.8	0.094
TG4G080R00	80.00 mm	80.00 mm	50.0 mm	7	27.00 mm	12.4 mm	0.8	0.094

See tech page for programming information.

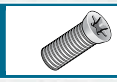
09MM INSERTS

UNLU09	MOTR	MOTR-MM	MOTR-ML
 			

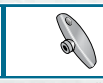
Part Number	Application	REEQ Program Radius Equivalent	NOI Number of Indexes	IH Insert Hand	Grade	IN2035	IN2504	IN2505	IN2510	IN2530	IN7035
UNLU0904M0TR	Multi-Purpose	0.094	4	Right		•	•	•	•	•	
UNLU0904M0TR-ML	Precision	0.094	4	Right		•		•		•	•
UNLU0904M0TR-MM	Positive Geometry	0.094	4	Right		•	•	•		•	•

Detail	Insert Number	REEQ Program Radius Equivalent	Description
	UNLU0904M0TR	0.094	Multi-Purpose Extra strong positive rake face geometry for machining steel and various high temp alloys
	UNLU0904M0TR-MM	0.094	Multi-Purpose - Keen Edge Strong, positive rake face geometry well-suited to machining steels and high temp alloys. The keen edge promotes lower cutting forces and free shearing action.
	UNLU0904M0TR-ML	0.094	High-Positive - Keen Edge Sharp positive rake face geometry and shearing action is well-suited to machining high temp alloys

INCH HARDWARE

	 Insert Screw	 Driver Handle	 Driver Blade	 Socket Head Cap Screw	 Optional Coolant Bolt
1TG1G-10019S1R03	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-10020S1R03	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-12027E2R03	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-12027E2R04	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-12047E2R03	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-15016E2R04	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-15016E2R05	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-10015X7R03	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-12015X8R04	SM35-088-10	DS-A00T	DS-T106B	-	-
1TG1G-15015X9R10	SM35-088-10	DS-A00T	DS-T106B	-	-
TG1G-20R01	SM35-088-10	DS-A00T	DS-T106B	SD-06-48	SD-06-A6
TG2G-20R01	SM35-088-10	DS-A00T	DS-T106B	SD-06-48	SD-06-A6
TG1G-25R01	SM35-088-10	DS-A00T	DS-T106B	SD-06-48	SD-06-A6
TG1G-30R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-46	SD-08-92
TG2G-30R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-46	SD-08-92

METRIC HARDWARE

	 Insert Screw	 Driver Handle	 Driver Blade	 Socket Head Cap Screw
1TG1G025070T5R01	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G025110T5R01	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G032070U7R00	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G032070U7R02	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G032120U7R00	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G032120U7R02	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G025035X7R00	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G025035X7R01	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G032043X8R00	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G032043X8R01	SM35-088-10	DS-A00T	DS-T106B	-
1TG1G035043X8R00	SM35-088-10	DS-A00T	DS-T106B	-
TG2G040R01	SM35-088-10	DS-A00T	DS-T106B	SD080-01
TG1G050R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG2G050R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG3G050R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG1G052R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG2G052R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG1G063R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG2G063R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG3G063R00	SM35-088-10	DS-A00T	DS-T106B	SD06-81
TG1G080R00	SM35-088-10	DS-A00T	DS-T106B	SD012-35
TG2G080R00	SM35-088-10	DS-A00T	DS-T106B	SD012-35
TG3G080R00	SM35-088-10	DS-A00T	DS-T106B	SD012-35
TG4G080R00	SM35-088-10	DS-A00T	DS-T106B	SD012-35

OPERATING GUIDELINES

Hi-FeedMidi - Series 1TG1G, TG1G, TG2G											
Material		Brinnell Hardness	SFM	Feed per Insert	IN2505	IN2504	IN2510	IN2530	IN2035	IN7035	Coolant
Steel	Mild 1018-1045	125-425	425-985	.019-.101	1			2			No
	Low Alloy 4140, 8620, 4340	150-425	390-820	.015-.118	1	3		2			
	Med Alloy P20, S7, H13, O1, A2		300-900	.012-.098	1	3		2			
	High Alloy A7-D2	200-425	275-600		1			2			
Cast Iron	Gray	190-220	300 - 1000	.012 - .118	2		1				No
	Nodular	140-200			2		1				
Hardened Steel	ALL	425	165-360	.012-.078	2	1					No
Stainless Steel	Free Machining 303, 416	150-425	260-560	.012-.078				3	2	1	Yes
	300 Series 304, 310, 316							3	2	1	
	400 Series 410, 420, 15-5PH, 17-4 PH		330-690	.015-.078				3	2	1	
	PH Series 13-8		100-330	.009-.036				3	2	1	
Titanium	6AL-4V	-	90-260	.012-.078				3	2	1	Yes
High Temp Alloy	Inconel	-	65-200	.003-.005				3	2	1	Yes

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.